

REMARKS

Claims 1-4, 6, 8-9, 11 and 16 are pending in the application. By this Amendment, claims 1, 3-4, 6, 8, 9, 11 and 16 are amended and claims 15 and 20 are cancelled without prejudice or disclaimer. Various amendments are made for clarity and are unrelated to issues of patentability.

The Office Action rejects claims 1-3, 5-6, 8-13, 15-16 and 18-21 under 35 U.S.C. §103(a) over U.S. Patent 6,804,246 to Petersen et al. (hereafter Petersen) in view of newly-cited U.S. Patent Publication 2003/0156569 to Kawakami and newly-cited U.S. Patent 6,621,821 to Song. The Office Action also rejects claims 4 and 14 under 35 U.S.C. §103(a) over Petersen in view of Kawakami and Song and further in view of U.S. Patent 6,628,641 to Strawczynski. The rejection is respectfully traversed with respect to the pending claims.

Independent claim 1 recites an AAL transmitter to generate one or more AAL cells by multiplexing N AAL packets, generated by adding an AAL packet header to an i^{th} data subset of an original single user data set, wherein each of the one or more AAL cells includes an ATM header and a Start of Packet field to indicate a starting location of an i^{th} one of the N AAL packets within the corresponding AAL cell, the AAL transmitter residing in a channel card, the channel card further including an AAL receiver and a CPU. Independent claim 1 also recites an AAL receiver to receive the one or more AAL cells generated by the AAL transmitter and to restore the original single user data set by demultiplexing the N AAL packets included in the one or more AAL cells, the AAL receiver residing in an AAL2 processor. Still further, independent claim 1 recites an AAL2 transmitter to receive the restored original single user data set from the AAL receiver and to generate one or more of the AAL2 cells by multiplexing M common part

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sublayer (CPS) packets, generated by adding a CPS packet header to a j^{th} data subset of the restored original single user data set, the AAL2 transmitter residing in the AAL2 processor, wherein i, j, N , and M are positive integers, $1 \leq i \leq N$, and $1 \leq j \leq M$.

The applied references do not teach or suggest all the features of independent claim 1. More specifically, the applied references as a whole do not teach or suggest the specifically claimed features related to AAL cells. The Office Action primarily relies on Petersen to show numerous features relating to generating AAL cells, receiving AAL cells and generating AAL2 cells. Independent claim 1 recites that each of the one or more AAL cells includes an ATM header and a Start of Packet field to indicate a starting location of an i^{th} one of the N AAL packets within the corresponding AAL cell. The Office Action admits that Petersen does not describe a start of packet field to indicate a starting location of an AAL packet. The Office Action then relies on Song's col. 2, lines 19-21 to show an alleged start of packet field. However, Petersen expressly does not use a start of packet field. See Petersen's col. 9, lines 45-46 and 56-58 and FIG. 6A-6B. Petersen's express desire to not use a start of packet field is described in col. 2, lines 14-39 with respect to the start field 24.

The Office Action may not merely combine a start field from Song (or from Lee) with Petersen's apparatus when Petersen expressly avoids using a start of packet field. Such a modification is based on impermissible hindsight and would destroy the operations of Petersen. See M.P.E.P. §2143.01 where it states if a proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. Further,

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the combination of Song with Petersen would teach away from the express teachings of Petersen, namely to avoid a start field. Petersen's lengthy disclosure that is cited in the Office Action is expressly attempting to avoid use of a start field. The Office Action states that the motivation to combine the references is to reduce the loss of transmission bandwidth due to incoming ATM cell having a short length. This motivation is insufficient to destroy the express purpose of Petersen. Further, there is no expectation that such a combination of Petersen with Song would be successful, since the apparatus described within Petersen is expressly avoiding the use of a start field.

Independent claim 1 also recites features relating to an original single user data set, subsets of an original single user data set and a restored original single user data set. These various features are providing within the specific apparatus features of independent claim 1. However, the applied references do not suggest all the claimed features relating to the single user data set. For example, Kawakami's paragraph [0090], which is cited in the Office Action, relates to individual user data stored in each of the received CPS packets P1, P2, ... Additionally, Lee's col. 2, lines 12-22, which is cited in the Office Action, states that the CPS-packets transmitted from the plurality of users are multiplexed into the CPS-PDU payload. The cited sections of Kawakami and Lee may not be simply relied upon by picking and choosing features of their disclosures since they do not teach the specifically claimed features of the original single user data set, subsets of an original single user data set and/or a restored original single user data set.

Additionally, Lee and the present application were both commonly assigned to LG Electronics Inc. at the time the invention was made. The Office Action appears to cite a section

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of Lee. As best known to applicant, any potential rejection based on Lee (including any statements and/or admissions) would be based on Lee qualifying as prior art under 35 U.S.C. §102(e). Thus, in accordance with 35 U.S.C. §103(c), Lee would be disqualified as prior art. The Office Action's discussion of "conventional" does not make any section of Lee be prior art to the present application in any obviousness rejection. Should the Patent Office believe that Lee qualifies as prior art under any other section of 35 U.S.C. §102, the Patent Office is requested to inform the applicant of the basis for the indication of prior art.

For at least the reasons set forth above, the applied references do not teach or suggest all the features of independent claim 1. Thus, independent claim 1 defines patentable subject matter.

Independent claim 6 recites an AAL transmitter to receive the restored single original user data set from the AAL2 receiver and to generate one or more AAL cells by multiplexing N AAL packets, generated by adding an AAL packet header to an i^{th} data subset of the restored single original user data set, wherein each of the one or more AAL cells includes an ATM header and a Start of Packet field to indicate a starting location of an i^{th} one of the N AAL packets within the corresponding AAL cell.

For at least similar reasons as set forth above, the applied references do not teach or suggest at least these features of independent claim 6. The applied references also not teach or suggest all the features of independent claim 6 relating to a single original user data set and to restore the single original user data set. Thus, independent claim 6 defines patentable subject matter.

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Independent claim 11 recites generating one or more AAL cells by multiplexing the generated N AAL packets in the AAL transmitter of the channel card, wherein each of the one or more AAL cells includes an ATM header and a Start of Packet field that indicates a starting location of an ith one of the N AAL packets within the corresponding AAL cell.

For at least similar reasons as set forth above, the applied references do not teach or suggest at least these features of independent claim 11. The applied references also not teach or suggest all the features of independent claim 11 relating to an original single user data set and a restored original single user data set. Thus, independent claim 11 defines patentable subject matter.

Independent claim 16 recites generating one or more AAL cells by multiplexing the N AAL packets by the AAL transmitter residing in the AAL2 processor, wherein each of the one or more AAL cells includes an ATM header and a Start of Packet field to indicate a starting location of an ith one of the N AAL packets within the corresponding AAL cell.

For at least similar reasons as set forth above, the applied references do not teach or suggest at least these features of independent claim 16. The applied references also not teach or suggest all the features of independent claim 16 relating to an original single user data set and a restored original single user data set. Thus, independent claim 16 defines patentable subject matter.

For at least the reasons set forth above, each of independent claims 1, 6, 11 and 16 defines patentable subject matter. Each of the dependent claims depends from one of the independent claims and therefore defines patentable subject matter at least for this reason. In

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addition, the dependent claims recite features that further and independently distinguish over the applied references.

CONCLUSION

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance of claims 1-4, 6, 8-9, 11 and 16 are earnestly solicited. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. §1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

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